

## CLAIMS

I claim:

1. A polyphase alternating current power distribution apparatus comprising in combination:

- A. a power distribution housing;
- B. a polyphase power input disposed in the power distribution housing;
- C. a plurality of power outputs disposed in the power distribution housing, with at least one power output being in power supply communication with one power phase provided by the polyphase power input and at least a second power output being in power supply communication with a second power phase provided by the polyphase power input;
- D. a plurality of power information monitors disposed in the power distribution housing with at least one power information monitor being associated with at least said one power output and at least a second power information monitor being associated with at least said second power output;

whereby said one power information monitor may report information regarding said one power phase provided through said one power output and said second power information monitor may report information regarding said second power phase provided through said second power output.

2. The polyphase alternating current power distribution apparatus of claim 1 wherein said one power information monitor comprises a first phase current display and said

second power information monitor comprises a second phase current display and wherein the apparatus also includes a plurality of current determination circuits disposed in the power distribution housing with: (i) one current determination circuit intermediate said first phase current monitor and said one power output; and (ii) a second current determination circuit intermediate said second phase current monitor and said second power output.

3. The polyphase alternating current power distribution apparatus of claim 2 wherein the power distribution housing is elongated and includes at least one vertical rack mounting element whereby the elongated housing may be mounted to extend vertically adjacent an equipment rack.

4. The polyphase alternating current power distribution apparatus of claim 1 wherein (i) said plurality of power outputs include at least a third power output being in power supply communication with a third power phase provided by the polyphase power input; and (ii) said plurality of power information monitors include a third power information monitor associated with said third power output.

5. The polyphase alternating current power distribution apparatus of claim 3 wherein (i) said plurality of power outputs include at least a third power output being in power supply communication with a third power phase provided by the polyphase power input; (ii) said plurality of power information monitors include a third power information monitor, comprising a third current display, associated with said third power output; and

(iii) said plurality of current determination circuits include a third current determination circuit intermediate said third phase current monitor and said third power output.

6. The polyphase alternating current power distribution apparatus of claim 1 wherein the polyphase power input includes a neutral line and the plurality of power information monitors includes a neutral information monitor associated with the neutral line.

7. The polyphase alternating current power distribution apparatus of claim 5 wherein the polyphase power input includes a neutral line and the plurality of power information monitors includes a neutral information monitor, comprising a neutral current display, associated with the neutral line.

8. The polyphase alternating current power distribution apparatus of claim 1 wherein each among the plurality of power information monitors includes a sensory alarm, whereby a human in the vicinity of the power distribution housing may automatically receiving sensory stimulation from said sensory alarm.

9. The polyphase alternating current power distribution apparatus of claim 7 wherein each among the plurality of power information monitors includes a sensory alarm, whereby a human in the vicinity of the power distribution housing may automatically receiving sensory stimulation from said sensory alarm.

10. A polyphase alternating current power distribution apparatus comprising in combination:

- A. a power distribution housing;
- B. a polyphase power input disposed in the power distribution housing;
- C. a plurality of first phase power outputs disposed in the power distribution housing and connected in power supply communication with one power phase provided by the polyphase power input;
- D. a plurality of second phase power outputs disposed in the power distribution housing and connected in power supply communication with a second power phase provided by the polyphase power input;
- E. a plurality of power information displays disposed in the power distribution housing with at least one power information display being associated with said plurality of first phase power outputs and a second power information display being associated with said plurality of second phase power outputs;

whereby said one power information display may display information regarding first phase power provided through said plurality of first power phase power outputs and said second power information may display information regarding second phase power provided through said plurality of second phase power outputs.

11. The polyphase alternating current power distribution apparatus of claim 10 wherein the power distribution housing (i) is elongated, (ii) has an elongated power output face, with the first phase power outputs, the second phase power outputs, and the power information displays disposed along said elongated power output face, and (iii) includes at

least one rack mounting section, whereby the power distribution housing may be mounted adjacent an electronic equipment rack.

12. The polyphase alternating current power distribution apparatus of claim 10 also including (i) a plurality of third phase power outputs disposed in the power distribution housing in power supply communication with a third power phase provided the polyphase power input; and (ii) a third power information display among the plurality of power information displays and associated with the third phase power outputs.

13. The polyphase alternating current power distribution apparatus of claim 11 also including (i) a plurality of third phase power outputs disposed in the power distribution housing, disposed along the elongated power output face, in power supply communication with a third power phase provided the polyphase power input; and (ii) a third power information display among the plurality of power information displays and associated with the third phase power outputs.

14. The polyphase alternating current power distribution apparatus of claim 10 wherein each among each of said one and said second power information displays comprise a current display connected in collective current determining communication with the associated plurality of power outputs for the power information display.

15. The polyphase alternating current power distribution apparatus of claim 10 wherein said polyphase power input includes a neutral line and wherein said plurality of power

information displays includes a neutral line information display in communication with the neutral line.

16. The polyphase alternating current power distribution apparatus of claim 14 wherein said polyphase power input includes a neutral line and wherein said plurality of power information displays also includes a neutral line information display in current determining communication with the neutral line.

17. The polyphase alternating current power distribution apparatus of claim 10 wherein each of the power information displays has an associated sensory alarm.

18. The polyphase alternating current power distribution apparatus of claim 16 wherein each of the power information displays has an associated audible alarm.

19. A polyphase power distribution apparatus comprising in combination:
- A. a power distribution apparatus housing;
  - B. a polyphase power input disposed in the power distribution apparatus housing;
  - C. a plurality phase one output ports disposed in the power distribution apparatus housing in power supply communication with phase one power provided by the polyphase power input;

- D. a plurality of phase two output ports disposed in the power distribution housing in power supply communication with phase two power provided by the polyphase power input;
- E. means for displaying information regarding phase one power provided by the plurality of phase one output ports, said phase one displaying means being disposed in the power distribution apparatus housing; and
- F. means for displaying information regarding phase two power provided by the plurality of phase two output ports, said phase two displaying means being disposed in the power distribution apparatus housing.

20. The polyphase power distribution apparatus of claim 19 wherein the power distribution apparatus housing is elongated, has an elongated side to which the phase one displaying means and phase two displaying means are secured, and includes a vertical rack mounting section, whereby the power distribution apparatus may be vertically mounted adjacent a vertical side of an electronic equipment rack.

21. The polyphase power distribution apparatus of claim 19 also including (i) a plurality of phase three output ports disposed in the power distribution apparatus housing, and (ii) means for displaying information regarding phase three power provided by the plurality of phase three output ports, said phase three displaying means being disposed in the power distribution apparatus housing.

22. The polyphase power distribution apparatus of claim 19 wherein (i) the polyphase power input includes a neutral line and (ii) the polyphase power distribution apparatus also includes means for displaying information regarding the neutral line, said neutral line displaying means being disposed in the power distribution apparatus housing
23. The polyphase power distribution apparatus of claim 21 wherein (i) the polyphase power input includes a neutral line and (ii) the polyphase power distribution apparatus also includes means for displaying information regarding the neutral line, said neutral line displaying means being disposed in the power distribution apparatus housing
24. The polyphase power distribution apparatus of claim 19 wherein the phase one displaying means and phase two displaying means each include means for issuing a sensory alarm to a person proximate to the polyphase power distribution apparatus.
25. The polyphase power distribution apparatus of claim 21 wherein each displaying means includes means for issuing a sensory alarm to a person proximate to the polyphase power distribution apparatus.
26. The polyphase power distribution apparatus of claim 22 wherein each displaying means includes means for issuing an audible alarm to a person proximate to the polyphase power distribution apparatus.